

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An ink jet recording medium comprising a substrate and a plurality of ink absorption layers provided thereon, wherein an upper layer of the ink absorption layers contains inorganic pigment, a binder and thermoplastic particles, and the content by weight of the inorganic pigment being greater than that of the thermoplastic particles.

2. (Withdrawn) The ink jet recording medium of claim 1, wherein the medium is subjected to image recording employing pigment ink.

3. (Withdrawn) The ink jet recording medium of claim 1, wherein the medium is subjected to image recording and then subjected to heating treatment.

4. (Original) The ink jet recording medium of claim 1, wherein at least one of the plural ink absorption layers except for the upper layer contains inorganic pigment.

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

5. (Original) The ink jet recording medium of claim 1, wherein the inorganic pigment is silica.

6. (Original) The ink jet recording medium of claim 1, wherein the inorganic pigment is alumina.

7. (Original) The ink jet recording medium of claim 1, wherein the content ratio by weight of thermoplastic particles/inorganic pigment is from 45/55 to 10/90.

8. (Original) The ink jet recording medium of claim 1, wherein the solid content of the thermoplastic particles contained in the upper layer is from 0.5 to 15 g/m² of the medium.

9. (Original) The ink jet recording medium of claim 1, wherein the solid content of the upper layer is from 2 to 50 g/m² of the medium.

10. (Original) The ink jet recording medium of claim 1, wherein the upper layer is an uppermost layer.

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

11. (Original) The ink jet recording medium of claim 4, wherein the inorganic pigment is silica.

12. (Original) The ink jet recording medium of claim 4, wherein the inorganic pigment is alumina.

13. (Original) The ink jet recording medium of claim 4, wherein at least one of the plural ink absorption layers except for the upper layer contains inorganic pigment in an amount of not less than 50% by weight.

14. (Currently Amended) An ink jet recording medium comprising a substrate and provided thereon, an upper layer containing inorganic pigment in an amount of 30 to 70% by weight, a binder and thermoplastic particles, the upper layer being a single layer, wherein the content ratio by weight of inorganic pigment/thermoplastic particles is from 3/7 to less than 7/3.

15. (Withdrawn) The ink jet recording medium of claim 14, wherein the medium is subjected to image recording employing pigment ink.

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

16. (Withdrawn) The ink jet recording medium of claim 14, wherein the medium is subjected to image recording and then subjected to heating treatment.

17. (Currently Amended) An ink jet recording medium comprising a substrate and a plurality of ink absorption layers provided thereon, ~~plural ink absorption layers including wherein~~ an upper layer of the ink absorption layers contains containing inorganic pigment in an amount of 30 to 70% by weight, a binder and thermoplastic particles, and wherein the content ratio by weight of inorganic pigment/thermoplastic particles is from 3/7 to less than 7/3 by weight.

18. (Withdrawn) The ink jet recording medium of claim 17, wherein the medium is subjected to image recording employing pigment ink.

19. (Withdrawn) The ink jet recording medium of claim 17, wherein the medium is subjected to image recording and then subjected to heating treatment.

20. (Withdrawn) A method of manufacturing an ink jet recording medium comprising a substrate and provided thereon,

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

plural ink absorption layers including an upper layer containing inorganic pigment and thermoplastic particles and a layer adjoining the upper layer, the method comprises the step of simultaneously coating the upper layer and the layer adjoining the upper layer on the substrate.

21. (Withdrawn) The method of claim 20, wherein the upper layer contains inorganic pigment and thermoplastic particles, the content by weight of the inorganic pigment being greater than the content of the thermoplastic particles.

22. (Withdrawn) The method of claim 20, wherein all of the plural ink absorption layers are simultaneously multi-layer coated.

23. (Withdrawn) A method of forming an ink jet image, the method comprising the steps of recording an ink jet image on the recording medium of any one of claims 1, 4 through 14, and 17, and then melting the thermoplastic particles in the upper layer.

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

24. (Withdrawn) The method of claim 23, wherein the ink jet image is recorded employing pigment ink.

25. (Withdrawn) The method of claim 23, wherein the total image forming comprising the recording and the melting is carried out at a speed of 1 to 15 m²/hour.

26. (Withdrawn) The method of claim 23, wherein the melting is carried out by heating.

27. (Previously Presented) An ink jet recording medium of claim 1, wherein the substrate has a base paper laminated with polyethylene film on both sides.

28. (Previously Presented) An ink jet recording medium of claim 1, wherein the inorganic pigment is a gas phase method silica.

29. (Previously Presented) An ink jet recording medium of claim 1, wherein an average primary particle size of the inorganic pigment is from 4 to 50 nm.

Appl. No. 10/057,652
Reply to Office Action of October 5, 2004

30. (Previously Presented) An ink jet recording medium of claim 1, wherein an average particle size of the thermoplastic particles is from 0.1 to 5 μm .

31. (Previously Presented) An ink jet recording medium of claim 1, wherein a glass transition point of the thermoplastic particles is from 50 to 150°C.

32. (Previously Presented) An ink jet recording medium of claim 1, wherein a solid content of the thermoplastic particles is from 1 to 7 g/m².